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News Release

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Without Restoration, Coastal Land Loss to Continue

LAFAYETTE, LA-Scientists from the U.S. Geological Survey and other federal and state agencies are reporting that Louisiana lost approximately 1,900 square miles of coastal land, primarily coastal marshes, during the 20th century and could lose another 700 square miles over the next 50 years if no new restoration takes place.

That means by 2050 one third of coastal Louisiana will have vanished into the Gulf of Mexico. Nationally, Louisiana currently experiences about 90 percent of the total coastal wetland loss in the continental United States.

Based on USGS data, land loss rates have been reduced from 39 square miles per year between 1956 and 1978 to 24 square miles per year from 1990 to 2000. For the entire period, the loss rate has been 34 square miles per year.

In a peer-reviewed report to be released soon, USGS documents the recent work of the Louisiana Coastal Area (LCA) Land Change Study Group. The group includes federal and state government agencies and university experts in remote sensing, geographic information systems, ecosystem processes, and coastal land loss.

Data generated from the report are being used to plan and assess future coastal restoration. Restoring the state's coast will be one of the largest environmental projects ever undertaken in the United States, estimated to cost $14 billion over the next 40 years. State and federal officials, however, estimate that the cost of inaction will amount to more than $100 billion in infrastructure alone.

The group used historical data and the latest technology to predict land changes, especially the conversion of land to open water from 2000 to 2050. The report was done in support of the Louisiana Coastal Area Comprehensive Coastwide Ecosystem Restoration Study.

According to James B. Johnston, spatial analysis branch chief at the USGS National Wetlands Research Center, "If we take wetland loss information from the USGS and the U.S. Army Corps of Engineers, we know that Louisiana lost 1,900 square miles from 1932 to 2000, roughly an area the size of the state of Delaware. Based on the best scientific estimates appearing in the LCA Land Los Report, the state will lose an additional 700 square miles, about equal to the size of the greater Washington, D.C.-Baltimore, Md. area."

The area undergoing the greatest wetland loss is the Barataria and Terrebonne basins, south of New Orleans. Communities in that vicinity include Thibodaux, Houma, Golden Meadow and Grand Isle. From 1956 to 1978 that area, according to John Barras, USGS geographer, accounted for 43 percent of

Louisiana's total coastal wetland loss. From 1978 to 1990, Barataria-Terrebonne experienced 61 percent of the state's loss and from 1990 to 2000, it was 66 percent. The LCA report predicts the area's percentage of loss to be as much as 80 percent from 2000 to 2050 if no new restoration occurs.

The impacts on human populations, the oil and gas infrastructure, fisheries and the seafood industry, and wildlife will be considerable if coastal wetlands continue to disappear.

Not only are there significant populations in the Barataria-Terrebonne area, Johnston said, but also the entire region helps buffer larger populations and property in the New Orleans area from hurricanes and other storms. The U.S. Census Bureau estimates that about half of Louisiana's 4.5 million people live in coastal parishes. Without wetlands to buffer storms both people and property are at risk

Louisiana wetlands are also natural protection for the oil and gas production facilities and pipelines delivering fuel to heat the homes and power the cars of about a quarter of the United States. Without wetlands as a buffer, storms could devastate the U.S. energy security because coastal Louisiana is the home of the U.S. Strategic Petroleum Reserve Sites, a necessity during national emergencies, as well as thousands of miles of pipelines and numerous refineries.

Coastal Louisiana wetlands are termed "America's Wetlands" because of their great environmental and societal value. They make up the seventh largest delta on Earth and are the heart of an intricate ecosystem some scientists say is on the verge of collapse. They contain over 40 percent of the U.S. tidal marshes and support the largest commercial fishery in the lower 48 states.

These wetlands provide wintering habitat for millions of waterfowl and migratory birds as well as home for several endangered and threatened species. Coastal Louisiana contains 10 national wildlife refuges and one national park encompassing more than 500 square miles, some of which have wetland loss affecting their capacity to support fish and wildlife.

There are many causes of wetland loss, but chief among them are the dams, levees, navigation projects and channels erected along the mainstream and major tributaries of the Mississippi River. These projects, started in 1928 following the watershed flood of 1927, were completed in 1963, coinciding with the first observations of major coastal land loss in Louisiana. They have resulted in a 67 percent decrease in sediment delivered to the Louisiana coast, a necessary process to keep marshlands replenished.

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